The Gale Years

Larry Gale took the oath oF office February 1, 1979, *swearing to uphold the* constitution and *serve conservation.* With *the director are his wife, Norma, and Judge Ralph H. Duggins.*

Carl Not-en s last meeting with the Conservation Commission was January 19, 1979. The Commission expressed its appreciation for his services, not only as director but as a valued employee over thirty-eight years of service, and wished him well in his retirement.

The Design for Conservation program was Carl Noren's biggest contribution to the Department, but it has fallen to Larry R. Gale to carry it out, as he took over the reins on February 1, 1979.

Gale was born at Newport, Ohio, in 1921, descended from farmers and teachers on one side and three generations of country doctors on the other. The Gales were widely known as hunters, and he naturally took to hunting and fishing early. Gale likes to recount that the first birthday present he can recall was a Kentucky Walker foxhound named "Ging" after L. F. Ginger-y, Missouri publisher of the

Red Ranger Magazine. Squirrel hunting, fox chasing and bass fishing were Gale s favorite boyhood sports. He learned the practical side of forestry by spending high school weekends planting pine seedlings on a worn-out farm bought by his school advisor. One of his associates in that project was Ernest Gebhart, who later became state forester in Ohio.

Gale received his bachelor s degree from Ohio University in 1942, working as a research assistant on the state s ruffed grouse project before and shortly after graduation. He enlisted in the Marine Corps that summer and landed with the 4th Marine Division at Roi-Namur, Saipan, Tinian and Iwo Jima, later retiring from the U. S. Marine Corps Reserve as a lieutenant colonel.

Following the war he re-entered Ohio University and received his master s degree in wildlife in 1947. He worked briefly for the Ohio Division of Wildlife as a wildlife extension agent. From late 1947 to 1949, he was a game biologist with the Kentucky Department of Fish and Wildlife Resources. From 1949 to 1956, he served as game director of that department.

In January, 1957, he became chief of the Fish and Game Division in the Missouri Department of Conservation, attracted to Missouri by the fine reputation built by Bode and Stephens. Fish and Game Chief Melvin O. Steen had resigned the previous June to become director in Nebraska and there had been considerable jockeying for position as his replacement. The obvious choices were Game Chief Paul Tulenko, Fisheries Chief George B. Herndon and Chief Engineer J. Warren Smith. But for one reason or another the Commission had decided to go outside the Department in selecting a new division chief.

Gale was given an initial interview September, 1956, in Toronto, Canada, at the same meeting that Bode tendered his resignation. In December, Gale was called to Jefferson City for another interview and then offered the job of Fish and Game Division chief, effective January 1, 1957.

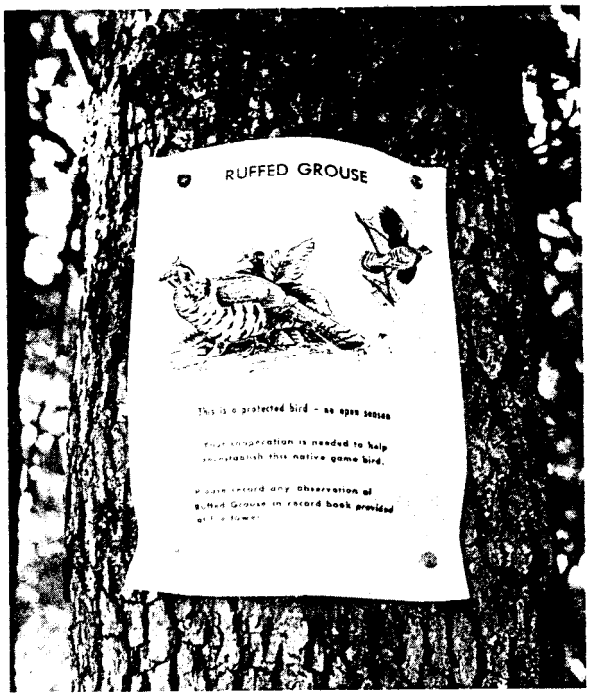
William Towell was not named director until May, and the Commission asked him to resubmit Gale s application at that time, in line with the constitutional provisions.

Gale was initially resented as an "outsider" when he took over Fish and Game chief duties in 1957, but soon replaced resentment with respect.

There was some initial resentment to outsider Gale from within the Fish and Game Division, but he gradually overcame this. From Steen he had taken on a deer restoration program that was essentially completed. Turkey restoration was getting under way and it was assigned top priority. The coturnix quail introduction experiment was beginning to wind down as unsuccessful and was quickly terminated. Experiments with several strains of exotic pheasants in an attempt to find one strain that might flourish under Missouri conditions were initiated.

Earlier releases of ruffed grouse from Wisconsin had failed, but Gale arranged trades of Missouri wild turkeys for ruffed grouse from Ohio and Indiana and these were successful. Quail and rabbits still were abundant, but on the horizon were major changes in farming practices that would work against those species.

Fishing opportunities were expanding rapidly through construction of large reservoirs by the U. S. Corps of Engineers and



Restoration efforts for ruffed grouse got major attention in *the 1960s.* Populations in *four* counties *north* of *the* Missouri *Ricer were augmented by grouse obtained* through *trade with other states.*

community lakes by the Department, as well as an agreement with the James Foundation to manage Maramec Spring as a trout park. Fish management experiments included commercial fishing at Lake Wappapello, stocking of striped bass, muskellunge and kokanee salmon, and establishing new creel and length limits on certain waters. These met with varying degrees of success, but they paved the way for future programs. These were the things that would occupy Gale as Division chief for the next seven years.

When Dan Saults resigned in 1964, Towell split the Fish and Game Division into separate divisions and promoted Gale to assistant director-line and Paul G. Barnickol assistant director-staff.

When Bill Towell resigned in 1967, Gale had been passed over as his replacement. According to two commissioners then serving, the Commission had become concerned over problems that might arise from others in the Department had they chosen Gale. They also wanted a completely different approach in administration, and felt Gale was too much like Towell in his methods. Gale naturally was disappointed and wondered if he had a future in the Department. He conferred with various commissioners who encouraged him to stay and, since he liked Missouri, he decided to make the best of the situation. He made a good alliance with Noren, and as assistant director took much of the day-to-day administration off his back so Noren could concentrate on his efforts to broaden programs and funding. As Gale puts it, Carl fronted for the new programs and I ran the shop.

In 1969, Gale was named associate director, and Allen Brohn was named assistant director-line. Gale s title was changed in 1976 to deputy director, in line with terminology used in other state departments.

When Carl Noren announced his intention to retire the following year, the Commission named Gale director-designate in March, 1978, though this did not become official until October. By doing this, it allowed for an easy transition from one director to another, without the disruptive jockeying that sometimes precedes a change in administration.

According to Gale, each director has his own methods and brings a different background to the position. Bode established the Department and fought its early battles. Towell's tenure was one of consolidation and reorganization, with Game and Fisheries divisions becoming more prominent under his administration. Noren brought broader programming and funding to all Department programs, and Gale saw his job as primarily one of implementing the **Design *for Conservation.*** All directors must worry about adequate funding to meet the public s demands for services, and all must strive to retain the Commission s basic authority.

The ***Design for Conservation*** program was Gale s chief inheritance from Noren, and a good start had already been made since it became operative in July, 1977. Land acquisition for recreation, forestry and rare and endangered species protection was a major portion of ***Design.*** Some 51,724 acres in land purchases had been made when Gale took over the reins. Most service areas of the De-

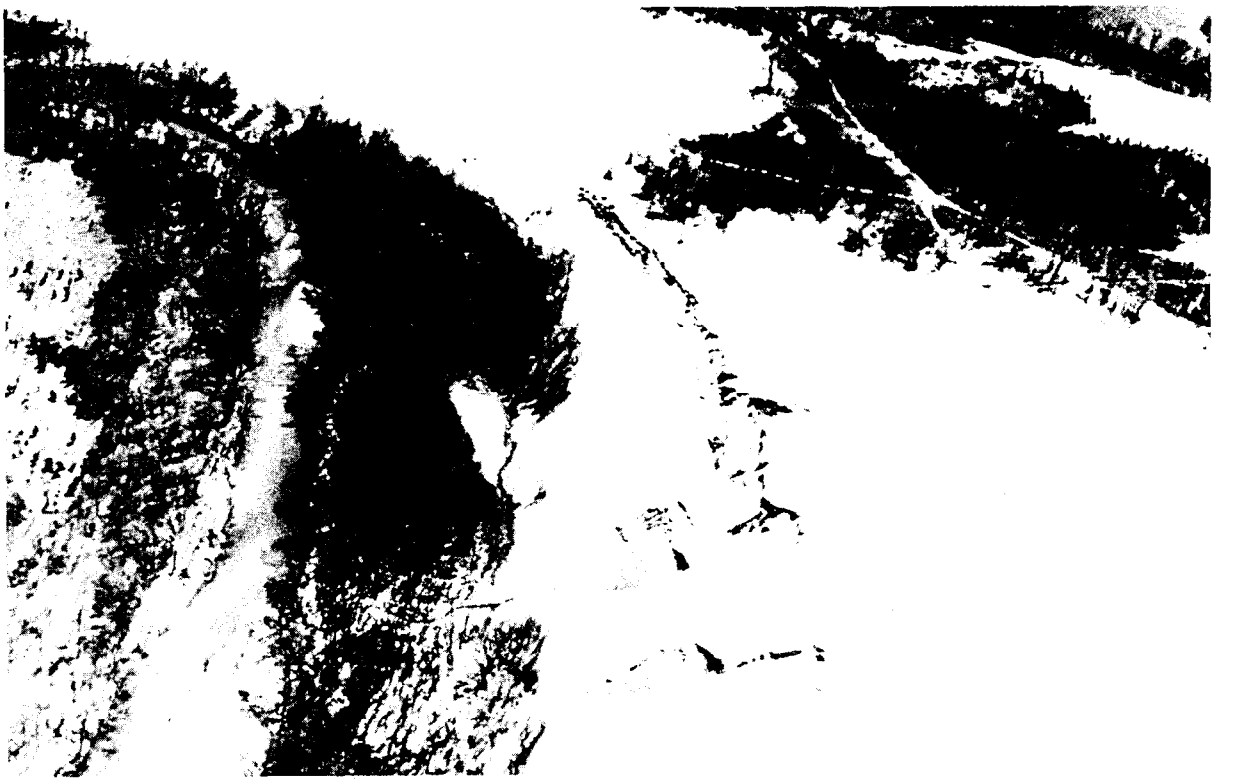
partment had been broadened or strengthened: thirty new conservation agents were in the field: a new Natural History Section was created; the Conservation Education staff doubled and a new elementary school and outdoor skills program were begun, along with many other changes. The Department staff had grown to carry out the expanded programs and the budget almost doubled.1

But a director inherits troubles, too. Looming on Gale s horizon was the steel shot for waterfowl issue which had begun in 1977, the problem with Truman Dam fish kills which began in 1978 and rapidly became worse, agitation over a new state waterfowl stamp, differences with the Division of Parks, and pollution problems on Big River.

Sometime in the summer of 1977, heavy rains in the watershed of Big River caused a lead mine tailings pile to pour what was estimated at 100,000 cubic yards of white, floury tailings into the river. Investigation showed that over thirty miles of Big River were affected by the pollution. In the months following, continued erosion of the tailings pile poured more pollutants into the river.

The entire Big River area, flowing as it does through the Missouri mining area, has a sordid history of pollution from many sources, and not only from mining operations.

It was learned that the tailings pile had been formed in lead mining by St. Joe Minerals Corporation over many years and that it covered some five hundred acres in a bend of Big River. When the mining company maintained the tailings pile it kept a dike built of the stuff to hold run-off water, with high water outlet pipes. In 1972, the minerals company conveyed the surface rights to the tailings pile to the St. Francois County Court, which had in turn conveyed it to the St. Francois County Environmental Corporation for use as a solid



Tailings from lead mine operations poured into Big River in 1977 when rains *caused* a dike *to break.*

1 For example, the first urban biologist, Joe Werner, and the first urban forester, Bruce G. Vawtcr, were employed.

waste disposal site. That corporation allowed the overflow pipes to become clogged and when heavy rains fell, a breach occurred in the dike, creating the erosion problem. Four-wheel drive vehicle traffic on the dike and elsewhere on the tailings pile aggravated the situation.

No direct fish kill was attributed to the pollution, but the river bed had become choked with silt, and bottom dwelling organisms in the river s food chain had been killed or otherwise affected for thirty-one miles downstream.

Neither the St. Francois County Court nor the Environmental Corporation had funds to repair the breach, and the minerals company disclaimed any responsibility since it had conveyed the tract to the county.

Then began months of negotiation, with the Department of Conservation, the Department of Natural Resources, Governor Joseph Teasdale, the attorney general, the St. Francois County Court, St. Joe Minerals Corporation, the U. S. Fish and Wildlife Service, the U. S. Army Corps of Engineers, the University of Missouri and even the federal Environmental Protection Agency getting into the act.

Commissioner Robert Aylward especially was concerned about degradation of a fine Ozark smallmouth bass stream and the Commission ordered the staff to take what steps it could to save the stream. Director Gale appointed a special task force to work on the problem from the Department s angle. Department biologists monitored the stream and charted the effects of the silt on the flora and fauna, ascertaining what was needed to restore the structure and prevent further damage.

In cases of pollution, the Department of Conservation is not the primary state agency. That responsibility falls to the Department of Natural Resources, which is the regulatory agency in water pollution matters. Where fish kills occur, personnel of the DOC usually are the first on the scene. An established procedure has been worked out involving both state agencies and sometimes the federal Environmental Protection Agency and the U. S. Corps of Engineers. The DOC has a water quality unit second to none within the Fisheries Division, and conservation agents play a major role in initial investigations and reporting, but legal actions and most negotiations must be undertaken by the DNR. Even though Commissioner Aylward urged the staff to save the stream, there were limits to what it could do.

It wasn t until late 1980 that Governor Teasdale issued a news release stating the St. Joe Minerals Corporation had agreed to pay for repairing the tailings pile. It agreed to restore the breaches in the dike, drainage contours and berms, and to establish vegetation to prevent further wind and water erosion. In return, the departments of Conservation and Natural Resources agreed not to bring suit for damages. The present landowner was required to maintain the drainage structure to prevent the problem from recurring.

Although St. Joe Minerals attempted the repairs, conditions are still poor in that stretch of the river. Vegetation attempts have largely failed. The dike broke in another place following the first repair, and silt continues periodically to enter the river. Big River remains a seriously degraded stream, and the major problem facing Missourians on this and similar pollution incidents is lack of an overall system for dealing with such matters.

To make matters worse, in September, 1980, the Department issued a joint news release with the State Division of Health warning that fish in that section of stream showed higher-than-normal concentrations of lead in their tissues. This was especially true of black redhorse suckers. Citizens were discouraged from eating large quantities of such fish from the river. A direct link between the silt pollution and high lead concentrations in fish has never been made, but the indications are there.

The controversy over use of steel shot for waterfowl hunting is a case history of how politics can intrude into a biological matter, to the detriment of the resource. The issue began in 1976, when the U. S. Fish and Wildlife Service proposed to phase in steel shot use for waterfowl hunting, beginning on selected areas in 1977.

The Service s proposal was based on many years of study that conclusively showed ingestion of lead shot pellets by waterfowl

Waterjowl mortality studies conducted by the U. S. Fish and Wildlife Service and other agencies concluded that a significant number of waterjowl deaths were caused by ingestion of lead shot. In 1976, the Service *proposed replacing lead shot with steel shot. The issue provoked a flurry of controversy for ten more years, when the Service reiterated regulations to phase in steel shot over a jive-year period.*

was a significant cause of death. There was some dispute as to exactly how much lead shot contributed to total waterfowl mortality, but no questioning the fact that it was killing ducks. On areas where tons of lead shot have been deposited by hunters over many years, ducks pick up lead pellets in their feeding that eventually cause their death from lead poisoning.

Over the years, ammunition manufacturers had experimented with other materials to replace lead shot, but it wasn t until the 1970s that a steel shot pellet was developed that showed promise. Steel could safely be ingested by ducks. However, there were ballistic differences between steel and lead shot.

Steel did not perform in flight like lead shot. It flew faster and held a tighter group, since there was no deformation of the pellets to cause fliers. It had a shorter shot string and its striking energy less less than that of a lead pellet of the same size. All these things could be overcome by learning to shoot differently and using larger size pellets.

On the negative side, there was some deformation of gun barrels, especially tightly choked barrels, and some erosion of soft steel barrels. The price of steel shot was initially about double that of lead shot shells. Steel shot was not available in many places in a variety of loads to meet all demands. All these objections were met over the next few years, as steel shot manufacturing became more efficient and special shells and wads were developed. The price declined slightly, and lead shot costs rose until their prices became roughly similar.

So why the problem? The problem was politics. Many old-time hunters objected to the new demands being placed on them.

They feared for treasured old guns. They objected to the price of steel shells. They couldn t get the hang of learning new shooting techniques. They claimed steel shot crippled and caused the deaths of at least as many waterfowl as died of lead poisoning, and they found an occasional biologist who would champion their cause. There was no lack of politicians willing to espouse their cause if it looked like there were votes in it.

The first year, 1977, the Fish and Wildlife Service mandated the use of steel shot for hunting waterfowl in St. Charles County. Immediately the cry went up, arguing against steel shot efficiency, and claiming the extent of lead poisoning as a mortality factor was exaggerated. Duck hunting clubs sent their representatives to the Conservation Commission to voice their opposition to steel shot. Nevertheless, the Commission expanded the steel shot areas to five zones the next year, at the urging of their own biologists and the Fish and Wildlife Service. The controversy continued to rage.

Hunters in southern states appealed to their congressmen to save them from the dread steel shot, and political pressures began to be applied to the Fish and Wildlife Service. In 1979, Senator Ted Stevens of Alaska (a state far removed from the steel shot controversy but with its own differences with the Department of the Interior) tacked on an amendment to the Fish and Wildlife Service s funding appropriation that effectively forbid use of the money to enforce any steel shot regulation unless individual states concurred. Southern states, of course, did not concur and other states-like Missouri, willing to enforce steel shot regulations-found themselves penalizing their own hunters. Nevertheless, in August, 1979, the Commission voted to keep Missouri in the steel shot enforcement picture, Dunn and Runge supporting and Aylward against. Commissioner Robert Talbot had died a month earlier and had not yet been replaced.[2]

In July, 1979, the Commission approved a test of steel shot versus lead shot to be conducted that fall at Schell-Osage Wildlife Area. The results showed conclusively that hunters using steel shot did as well as hunters using lead shot, though neither group knew what types of shells they were using.

In February, 1980, Wildlife Division Chief Dean Murphy reported to the Commission that thirty-three states were affected by the steel shot regulations-twenty-four states stayed with steel shot in certain zones, six states withdrew from enforcement, and three states modified their enforcement. The next month the Commission, under severe pressure from waterfowl hunters, rescinded the steel shot rules by a vote of three to one, Aylward, Waller and DiSalvo[3] favoring rescission and Dunn opposing.

Two months later in May, 1980, the Fish and Wildlife Service notified the Commission that if it did not vote to enforce steel shot regulations hunting would be closed in the vicinity of federal refuges, so the Commission reversed itself again and voted steel shot for Swan Lake zone, Upper Mississippi, and Mingo Unit in southeast Missouri.

In 1981, the Commission mandated steel shot for Montrose, Swan Lake, Fountain Grove, Marais Temps Clair, Duck Creek (and Mingo Unit), Schell-Osage, Ted Shanks, and Otter Slough wildlife areas. In ensuing years the steel shot controversy has raged all over the country, with the Missouri Commission waxing hot and cold on the issue. In general, commissioners Aylward and DiSalvo opposed steel shot, and Ernest Dunn staunchly supported its use.

The National Wildlife Federation finally brought suit against the Fish and Wildlife Service that resulted in a court decision essentially forcing the Service to again espouse steel shot because of secondary poisoning of bald eagles. The telling argument was that international migratory bird treaties and the Endangered Species Act required steps be taken to offset anything that might threaten eagles or waterfowl. The Service again pro-

[2] Robert Talbot died July 14, 1979. Gov. Joseph Teasdale appointed Gordon F. "Jack" Waller, a Malden banker, to replace him on September 28.

[3] Carl DiSalvo, a St. Louis automobile dealer, was appointed by qGov. Joseph Teasdale on Oct. 11, 1979, to replace Andy Runge, whose term expired. DiSalvo changed his mind and supported the use of steel shot late in his term.

posed a rule phasing in the use of steel shot for all waterfowl hunting over a five-year period beginning in 1986. The Department found itself back where it was ten years ago, but in those ten years the controversy gave Director Gale and the Conservation Commission a lot of gray hairs.

The waterfowl question caused another flap during the same years. Back in 1972, the waterfowl committee of the Conservation Federation of Missouri issued a resolution requesting the Department to create a waterfowl hunting stamp similar to the federal duck stamp, with proceeds to be used to enhance waterfowl hunting in the state. At about the same time Ducks Unlimited had asked for such a stamp, also. The Commission was deeply involved in the *Design for Conservation* program then, and didn t want to tackle anything that might affect those efforts.

In May, 1978, and again in June, Ducks Unlimited proposed a duck stamp with the proceeds to be divided up between work here in Missouri and on DU projects in Canada. The Department s legal counsel told the Commission that he didn t believe it could use funds as proposed. However, in February, 1979, the Commission okayed a $3 duck stamp for the fall hunting season, with forty five percent of the proceeds to be spent in Missouri, forty-five percent on contracted waterfowl projects in Canada that contributed

Proceeds from the first $3 waterfowl stamp, created by Charles Schwartz, were split between waterfowl projects in Missouri and Canada. Since the first stamp in 1979, funds have breeding, gathering, feeding and resting areas for waterfowl on *their annual migratory routes.*

to flights migrating through Missouri, and ten percent for administration of the program.

Immediately there was a hue and cry against the stamp. Some said that with the conservation sales tax the Department didn t need any additional revenue. The Conservation Federation s board opposed the stamp and its waterfowl committee reversed itself and also opposed it. The Commission s position was that the stamp affected only the waterfowl hunters and an earlier survey had shown them in favor of such a levy. It ordered another survey of hunters and three such surveys were actually conducted.

The first surveyed waterfowl hunters only and was conducted by the Department. Some sixty percent favored the new stamp. A telephone survey of hunters by the St. Louis public relations firm of Flieshman-Hillard Inc., showed essentially the same results. A survey of its members conducted by Ducks Unlimited showed that seventy-two percent favored the new stamp. On the strength of these surveys the Commission contracted with Ducks Unlimited for two water projects that could enhance duck flights into Missouri, the Bethel Project and the Two-Mile Chain Project, both in southern Manitoba. These cost $73,280. Ducks Unlimited has since completed the $300,000 Tatagwa Project in southern Saskatchewan, and is funding another, the Upper Buffalo Pound Project, also in Saskatchewan.

Proceeds from waterfowl stamps are providing breeding and gathering sites for ducks that make their way to Missouri, and providing feeding and resting places for the birds when they get here. Missouri waterfowl stamps also have added to the treasury of waterfowl art, as prints from stamps help recognize Missouri artists and enrich the lives of their purchasers. It was one waterfowl flap with a happy ending.

Not long after Gale had been named director-designate, the Department received word of the largest recorded fish kill in Missouri history, below new Harry S Truman Dam. It was learned that about 421,000 fish of all species had been killed by what is called gas bubble disease, or pop-eye disease, a condition similar to the bends in humans. There were heavy rainfalls in the Osage Basin that spring, and a heavy volume of water passed over the Truman Dam spillways.

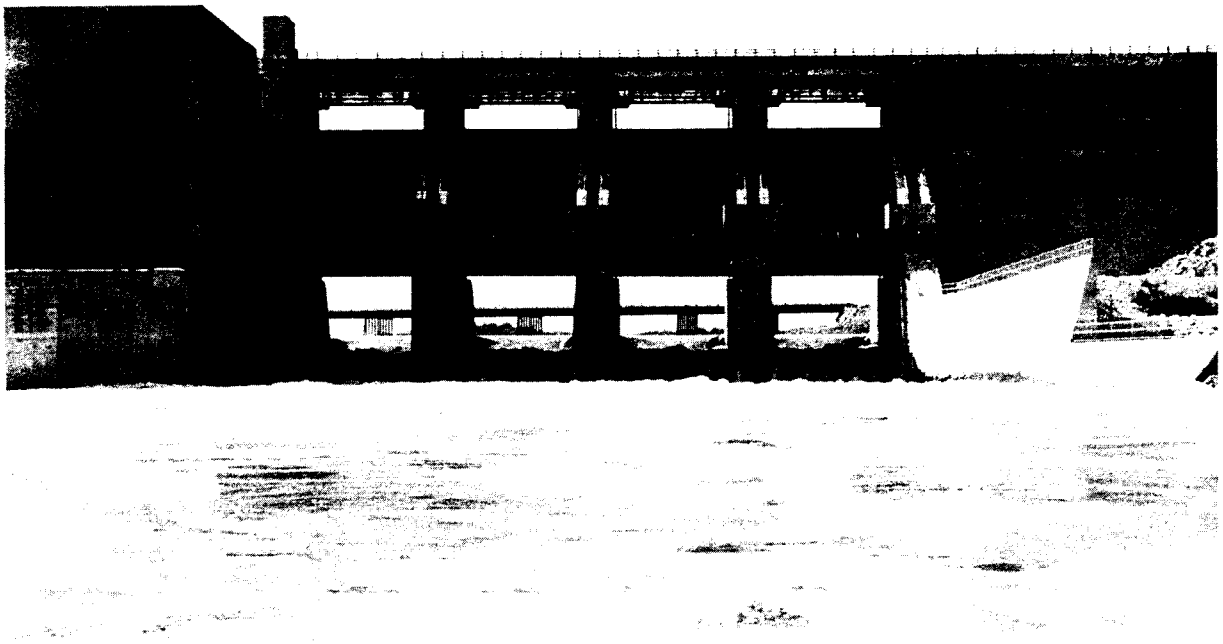
Below Truman Dam is a plunge pool some forty to sixty feet deep. The water plunging down at great velocity to those depths takes large volumes of air with it and as that water rises, it absorbs air to a degree of supersaturation- i n cases as much as 130 to 145 percent above normal. The supersaturation is less likely to occur in shallow waters. Nitrogen gas—the same gas that gives divers the bends-causes the deadly effect. In fish it manifests itself in air blisters under the skin and in the veins, so badly in some cases that the fish s eyes bulge (hence, pop-eye disease) or it can cause hemorrhaging.

An estimated 68,000 fish died in a five-day period in early April, 1978. A larger kill, estimated at 302,000 fish, occurred in mid-May. Fifty miles of upper Lake of the Ozarks below Truman Dam had fish affected by the disease, and fish kills continued for some time after the second major kill. Fish that weren t killed outright by the disease often died of secondary causes within a short time.

Fish kills from gas bubble disease were well known in the Pacific northwest, where Columbia River dams had experienced them years before. The solution there was to create what was called a flip lip, a device to keep the water from plunging deeply into the pool below the dam by shooting it out horizontally across the surface. The Corps built a flip lip at Truman Dam that became operative in the spring of 1980—then another fish kill was reported. Large paddlefish were being found dead or dying below Truman Dam, all exhibiting signs of physical damage, like bills, heads or lower jaws torn off. In all, 571 large paddlefish totaling 15,000 pounds were found.

Apparently, water hitting the flip lip jetted outward with such force that it physically damaged any fish that were close to it. The supersaturation problem was reduced, only to create another problem.

In August, 1980, yet another fish kill occurred, this time as part of a process the Corps calls "dewatering." Deep in the dam are openings for water to pass through to turn the turbines that generate electricity. These dark caverns are attractive to fish, especially to large catfish. When it becomes necessary to repair one of the six turbines in

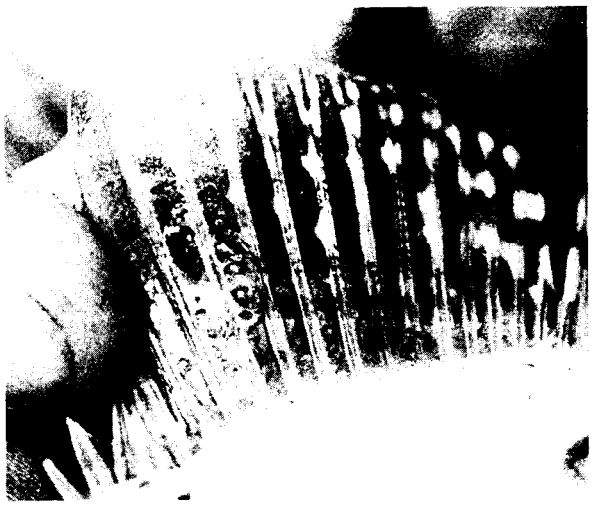


Water plunging over Truman Dam in 1978-79 killed an estimated 791,000 fish from a phenomenon similar to the "bends" that affects divers. The foam on the water s surface is an indication that the water is super-saturated with air, caused by plunging at great velocity over the spillway. The Corps of Engineers has since constructed a flip lip to slow the flow.

Truman Dam, gates are lowered so no new water can enter the turbine shaft and the water is pumped out (dewatering) so workmen can go down to work on the turbines.

When this was done in 1980, it was discovered that at least 538 large catfish weighing some 3,000 pounds were trapped in the shafts. Efforts were made to lift the fish out and release them below the dam, but many of them died in the handling. Losses to dewatering operations occurred three times in 1981, and twice in 1982—each time causing the deaths of large fish that would have gladdened the heart of some angler. A way had to be found to get the fish out of the turbine shafts before dewatering, and to keep them out until the process was completed.

But that wasn t the end of the Truman Dam fish kills. One of the processes built into Truman Dam was a pump-back operation whereby water used to generate electricity is pumped back during off-hours to refill Truman Reservoir for the next generating session. When generating, water velocity could reach six feet per second downstream; when pump-back was needed it would cause the river to



Air bubbles beneath the skin and in the veins were a manifestation of pop-eye or "gas bubble disease.

flow backwards three feet per second. The Corps of Engineers first tried the pump-back operation in April, 1982, using only two of the six units for three hours. Approximately 2,000 pounds of twelve different species of fish were sucked into the pumps and ground

up. Serious questions concerning the long-term effects on Lake of the Ozarks fishery resources were raised.. Pumping was discontinued while plans were made for a year-long series of tests to determine possible damage to the fishery.

Only two of the year-long tests were conducted-in July and September, 1984. They caused such large fish kills that the implications for impacting the fish population of Lake of the Ozarks were obvious. The pumping was discontinued indefinitely. The Conservation Commission, upon hearing of the September fish kills, called for a cessation of all pumping.

Environmental Services Supervisor William H. Dieffenbach reported documentation of ten separate fish kills at Truman Dam since the first one occurred in 1978. The Corps of Engineers has been in the middle of controversy ever since impoundment began. Its job was to build and operate the dam, but obligations to provide electricity to the Southwest Power Administration put the Corps at odds with resource managers and the public values of Lake of the Ozarks. Some of the problems have been at least partially solved, but most remain and have been the source of endless negotiations between the agencies involved.

Yet another water quality problem arose when a pipeline owned by the Williams Pipeline Company broke on November 14, 1981, spilling liquid fertilizer into Dry Creek in Phelps County.

Although the break was twelve miles south of Maramec Spring, in about ten days the pollutant began to appear there. Rare specimens of blind cave fish, albino crayfish and salamanders came up from the depths of the spring and were rescued by Department personnel. These were taken to Bennett Spring Hatchery, the St. Louis Zoo, and the Fish and Wildlife Research Center in Columbia for safe keeping. Trout at the Maramec Spring Hatchery had to be rounded up and trucked to other hatcheries until water conditions improved at Maramec.

The pipeline company repaired the break, but it wasn t until the following February, 1982, that it was possible to restock the spring with the rare blind cave fish, crayfish and salamanders, and resume normal hatchery operations. The pipeline company paid $115,OOO in fines and damages for the incident.[4]

Differences and problems with the Division of Parks arose in Gale s administration, as they did under William Towell s. One issue that caused friction for years was the status of certain areas purchased by hunting and fishing license funds under the old Fish and Game Department.

Ron Crunkilton returns blind cavefish and crayfish to Maramec Spring in *1982 after pollution from a broken fertilizer pipeline abated.*

In 1917, five percent of Fish and Game Department funds was ordered set aside by the legislature for purchase of state parks. This

[4] The pipeline was an old one and subject to frequent problems. It has since been abandoned by the company.

was later increased to twenty-five percent, and most of the major state parks were acquired with funds from hunting and fishing license sales.

When the new Conservation Commission came into being, lands customarily used as parks were given to the State Park Board and the remainder were considered Conservation Commission lands for wildlife and forestry purposes. Although these assignments of land were generally accepted, doubt and controversy remained, especially concerning lands at Sam A. Baker and Meramec state parks, which had been jointly administered over the years. Parts of both areas were operated by the State Park Board and a portion of each was considered state forest, administered by the Department of Conservation.

DNR Director Fred Lafser told the Commission that ownership of Sam Baker, Indian Trail, Meramec, Deer Run, Chesapeake and Sequiota was in doubt, but that he felt the State Park Board had special claims on Sam Baker and Meramec.

In 1980, the Commission determined that ownership of the two areas should be resolved and directed Gale to negotiate the matter with Lafser. The outcome, later ratified by legislative action in 1981-82, was that the Conservation Commission abandoned its claim to Sam Baker State Park and the DNR deeded its interest in what had been Meramec State Forest to the Conservation Commission. Title to Indian Trail, Deer Run, Painted Rock and Cardareva state forests was cleared to the Commission as well.

A much stickier situation arose between the two departments in the early 1980s as a result of pressure for funding of state parks. Conditions in the state parks had deteriorated because of loss of federal funding without any increased appropriations by a legislature grappling with other financial problems. The conservation sales tax passed by the voters in 1976 made the Department of Conservation one of the few agencies in state government not pressed for funds in the face of rising demands by the public. The conservation funds looked inviting to hard-pressed legislators seeking money for many state programs.

In January, 1980, a House Joint Resolution was introduced to divert one-half of the conservation sales tax monies to the Division of Parks. Legislators claimed that voters in 1976 had thought they were passing an amendment to fund the state parks, as well as conservation programs. This was a convenient thought on their part, but utterly untrue, as the amendment contained not one reference to parks and petitioners had plainly stated that the funds were meant to support the *Design* for *Conservation.* Legislators, however, continued to argue the point.

Osal B. Capps was legislative liaison during the controversy over funding for state parks.

Assistant Director Osal B. Capps, who also served as legislative liaison, proposed to the Commission an amendment transferring the parks to DOC administration as a response to the resolution. The Commission advised Capps to proceed in a manner which he feels is in the best interest of the Department. Nothing resulted from that legislative session, but state park funding continued to be a lively issue.

In June, 1981, Senator Clarence Ii. Heflin appeared before the Commission to urge its support of a merger between the State Park Division and the Department. The Commission agreed that such a merger might be

in the best interests of Missouri citizens, but adequate funding was a problem. Commissioner Robert Aylward was especially sympathetic to state park funding problems and felt the Department ought to give some sort of financial assistance to the parks.

Because of Aylward s sympathetic attitude, park officials were encouraged to appeal for Department funds for various expenses at the trout parks. Director Larry Gale pointed out to them that the DOC already was spending $1 million annually in the trout parks, while getting back less than half that from daily trout tag sales.

In September, 1981, the Commission gave assent to a joint resolution proposed by Senator Heflin that would merge the Department and State Parks Division, and increase the state sales tax earmarked for conservation from one-eighth of one percent to two-tenths of one percent.

The Department of Natural Resources, which administers the Division of Parks, fiercely opposed transferring Parks to the DOC. As its director, Fred Lafser, put it: In a regulatory agency such as this, Parks is our white hat agency."[5]

The proposal to merge state parks with Conservation was not universally accepted, and the Conservation Federation especially was opposed to any merger unless adequate funding came with it. Its executive director, Ed Stegner, said, The people of Missouri voted that conservation sales tax for wildlife and forestry, not for state parks. We oppose any siphoning off of that money for purposes other than the people intended.

The Commission ordered a survey of the Citizens Advisory Committee to determine members views on financial support of state parks by the Department. They were slightly more favorably inclined than the Federation s board of directors, but there was considerable difference of opinion in both groups, and no consensus was reached.

When the legislature met in January, 1982, Gale reported to the Commission that several resolutions and bills were introduced to transfer different agencies to the Department of Conservation, and/or to divert portions of the conservation sales tax monies for other purposes. One bill would simply transfer the state parks to Conservation without any additional funding. Gale said a study showed that without additional funding, in less than ten years the conservation fund would be exhausted, even without any further land acquisition under the *Design for Conservation* plan.

In February the Commission issued a statement outlining these facts, but said that it would abide by the will of the people if the matter came to a vote. This caused a rift with the Conservation Federation, which issued its own statement opposing any change in DOC funding.

Stegner complained that the Commission position was unclear: did it support taking over state parks without additional funding or not? The Commission replied that its position was very clear: it would abide by the will of the people.[6]

However, the Commission at last decided that it should oppose any constitutional changes that would curtail the *Design* program, approved by the voters in 1976, and issued a statement to that effect in March, 1982. The decision was hailed by the Federation and at last gave some guidance to people who were anxious to support the Conservation Commission but confused by the earlier position statement.

In April, DNR Director Fred Lafser and two legislators urged the Commission to accept a proposal from Governor Bond s staff, as a means of heading off legislation that would have merged state parks with the DOC, or that would divert funds from the conservation sales tax to state parks and soil conservation. This proposal was for the Commission to double the daily trout fishing fee in the state parks and give the additional funds to

[5] DNR people greatly feared that if the Division of Parks was taken over by the Conservation Department, many would lose their jobs. They actively campaigned against any merger.

[6] Federation Director Ed Stegner insists that in October, 1981, the Commission had agreed that it would oppose any merger with Parks without adequate, separate funding. Thus, to him the Commission's statement was a switch from that position.

Conservation Federation Director Ed Stegner opposed any move to merge state parks with the Department unless additional funding was included.

parks administration. It asked for $3 million from the conservation fund for soil conservation work by DNR, and suggested the Commission buy a portion of Lake of the Ozarks State Park from DNR for $12 million. The plan also suggested that the Conservation Commission purchase the Columbia Bottoms tract from the City of St. Louis.

The Commission countered by saying it opposed raising trout fees and giving $3 million for soil conservation. It was willing to buy a portion of Lake of the Ozarks State Park and Columbia Bottoms, but only at an appraised price. It said it would lend financial assistance to the parks if legal problems could be overcome. The Commission also offered to pay DNR for certain wildlife and forestry services it might render. The Governor s office and Lafser rejected the counter proposal and the Commission felt it had no further commitments to DNR.

An attempt was made in the legislature to appropriate $1 million from the conservation fund to DNR, but this was clearly illegal and disallowed. The legislative session ended without action to aid the parks, but with the conservation funds intact.

A year later, the Federation was able to secure passage of a proposal to increase the state sales tax for five years, with the additional funds earmarked for state parks and soil conservation. This was supported by the Conservation Commission and was passed by the voters in 1984. Thus ended the matter, but there were hard feelings for a time among members of both DNR and DOC, a matter of concern for both directors.

The *Design for Conservation* program will be ten years old in 1987. Progress has been right on target in the years since the program was begun. Land acquisition has reached the two-thirds point of that originally proposed. *Design* called for acquiring about 300,000 acres over twenty years, and by the end of November, 1986, the Commission had approved purchase of 221,397 acres in 106 counties involving 644 separate purchases at a total cost of $152,285,122. The Department acquired through gifts or donations an additional 5,566 acres. Breakdown by type of land acquired is fifty-four percent forested, twenty-four percent cropland, nineteen percent pasture and prairie and three percent marsh, lake and other.

When the conservation sales tax to fund the *Design for Conservation* program was passed, most opposition came from rural areas. Most rural people already had ready access to outdoor activities, so they did not feel the need. There was opposition, too, out of fear that the Department would have vast sums at hand to purchase property and would force farmers off their lands. The Commission had vowed not to resort to its powers of eminent domain, but that did little to allay farmer s fears. Spokesmen for farm interests, for various reasons, found it useful to whip up that fear.

Over the years there were claims the Department was forcing up the price of land, though land prices were inflated everywhere in the country in the late 1970s and early 1980s. In fact, at a Commission meeting in April, 1979, Director Gale told the Commission that it was unlikely that the Department would ever achieve the 300,000-acre goal it had set, because inflation dollars just wouldn t buy as much, and land prices were too high.

In behalf of the Department, Director Larry Gale accepts the Outdoor *Writers of America Mountain oj Jade Award from OWAA president Tom Opre in 1981. The Department received the award for the* Design for *Conservation program; it was the first time the award had been presented to a* state *agency.*

When land prices began to fall in 1984-85, the possibility of reaching the original goal increased, but the Commission had already issued orders for gradual phasing in of the development/management part of the land program, and funds have been allocated increasingly to that activity.

Without having to resort to eminent domain, a great deal more land was offered to the Department for sale than it was possible to buy. From January 1, 1979, through October 31, 1986; (seven years and ten months) the Department received and reviewed 5,044 offers of land, totaling 2,286,633 acres (5.2 percent of the state) at a total asking price of $1,687,811,266.

The Department s purchases for the most part were at or below appraised values, so the claim that it was driving up land prices was without foundation. For large purchases, two different appraisals are sought, and prices are usually comparable to the going rate for similar lands.

There were other problems on the farm front. Multiflora rose, introduced by the Soil Conservation Service as a cheap fencing sub-

stitute in the 1930s, was becoming a problem in many areas. It was an excellent wildlife plant and Fish and Game Division Chief Melvin Steen had added it to the Department s arsenal of measures to increase wildlife in the 1940s. It did its job, but seeds being spread by songbirds into pastures became a problem. The Department had already stopped producing and making multiflora rose seedlings available about 1975. In response to appeals from the farming community and as a show of good will, the Department entered into efforts to control multiflora rose by use of Tordon herbicide in several counties.

Creation of an agriculture liaison post to improve communication between the Department and agricultural agencies and agri-business organizations, handled by Raymond D. Evans, has gone a long way to satisfy farmer critics of the Department. Other measures helpful to both wildlife and farming have been the Department s warm season grass programs and free services offered by Department personnel in farm planning for wildlife and forestry. The Department started two experimental farms-in Lawrence and Worth counties-that incorporate wildlife practices along with regular farming. They demonstrate how wildlife can be integrated into successful farming, to the benefit of both.

The Conservation Commission when Gale became Director was composed of Robert Aylward, J. Ernest Dunn Jr., G. Andy Runge and Robert E. Talbot.

Gordon F. Jack Waller of Malden replaced Talbot on September 28, 1979. Carl

Biologist Steve Clubine explains the advantages of native warm season grasses to farmers at one of the Department s demonstration farms.

DiSalvo of St. Louis replaced Runge October 11, 1979. Waller, who was serving out Talbot s term of twenty-one months, was replaced July 8, 1981, by Peter Myers of Mathews. He was a Bootheel farmer, active in several farm organizations and a member of the Conservation Federation. He served as commissioner only eleven months, when he went on to head the U. S. Soil Conservation Service in Washington.

John B. Mahaffey of Springfield was appointed by Governor Bond on May 1, 1982, to serve out Myer s term. He owns a 1,500-acre ranch in Christian County and several radio stations.

In July, 1983, the terms of Aylward and Dunn expired and they were replaced by Jeffrey Churan of Chillicothe and Richard T. Reed of East Prairie. Churan is a general contractor and regional vice-president of Ducks Unlimited. During the *Design for Conservation* campaign he served as a fund raiser for the Citizens Committee for Conservation. Richard Reed is president and chief executive officer of the First Bank of East Prairie.

In July, 1985, Carl DiSalvo's term expired and Governor John Ashcroft selected John Powell of Rolla to replace him. Powell is a lumber dealer and landowner, operates the Frank B. Powell Lumber Co., and supervises an 18,000-acre tree farm. He was named Forest Conservationist of the Year in 1968 by the Conservation Federation and was a founder and first president of the Missouri Forest Products Association. Powell was Governor Ashcroft s campaign manager and former chairman of the Missouri Republican Party.

The *Design for Conservation* program, now more properly the expanded conservation program of the Department, will be ten years old on the same date the Department completes its fiftieth year. It was passed by Missourians in 1976, and despite attempts by other states to pass something similar, Missouri remains alone in demonstrating its citizens concerns for wildlife and forestry.

Harking back to Aldo Leopold s words in 1947: *Conservation, at bottom, rests on the conviction that there are things in this world more important than dollar signs and ciphers. Many* of *these other* things

Former Commissioner Peter *C. Myers, a Bootheel farmer, served as* commissioner for less than a *year. He went on to pursue a career in Washington, D.C. in the U. S. Department of Agriculture.*

attach to the land, and to the life *that is on it and in it. People who know these other things have been growing scarcer, but less so in Missouri than elsewhere. That is why conservation is possible here. If conser*vation *can become a living reality, it can do so in Missouri. This is because* Mis*sourians, in my opinion, are not yet completely industrialized in mind and spirit, and I hope never will be.*

A case could be made for those dollars and ciphers as to wildlife s value to Missouri. Resources Planner Daniel J. Witter determined in 1986 that for every dollar spent by the Fisheries and Wildlife Divisions of the Department, at least $62 came back into the Missouri economy. It is a bit more difficult to put a dollar value on hills once more covered with healthy timber, or clear, free-flowing streams, or just *seeing* a flock of wild turkeys as you drive through the state, but those are part of the accomplishments, also.

Leopold died the year after uttering the above-quoted remarks, and did not live to

see the edifice built by Stephens and the commissioners who followed him, and Bode and the directors who guided the Department from its first, halting years to what it has become today. But it was built on a base of those Missourians with un-industrialized minds.

Director Larry Gale, in his year s-end message to employees, wrote: As we near the end of another year of achievement in conservation, this is a fitting time to think about where we are and where we are going. All of us have many reasons to be thankful. High among these is the privilege of our membership in the finest conservation agency in this best of all countries.

As your Director, I am thankful for unselfish commissioners who are willing to listen, to weigh the facts in full consideration of public opinion and the needs of our fisheries, forests and wildlife, and to act decisively in establishing sound conservation policies.

We are forever indebted to those public-spirited citizens whose vision and labors first established and have since guarded our constitutional authority and our unique source of funding. During the past year two other states have tried unsuccessfully to enact conservation sales taxes. We hope they will try again and succeed, but few other states enjoy the unusual combination of factors that made it possible in Missouri.

With all these advantages, we have only ourselves to blame if we do not continue to show the way in fisheries, forestry and wildlife conservation. I am confident that we will meet the challenge. We have set new records this year, and we will set more in years to come.

Much remains to be done. We have initiated Project Bobwhite, with a goal of restoring depleted habitat for quail and other upland wildlife. The quality of our waters, both surface and underground, must be improved or we ll find more and more streams and lakes where the fish are unsafe for human consumption even if they are able to survive. In some areas forests are declining from unknown causes. Poachers persist in spite of our determined efforts to educate or control them.

Like all other problems, all of these present opportunities. We face the new year confident in our ability to find and carry out appropriate solutions.

Larry Gale led the Department through controversies and conundrums, but his greatest tusk, he believes, was implementing Design for Conservation with the one-eighth cent sales tax revenue.